

We claim:

1           1. A method of accordion folding a continuous web of  
2 foldable material having a succession of equidistant grooves  
3 formed therein and separating panels of said web from one  
4 another, said method comprising the steps of:

5           (a) advancing said web longitudinally at a speed of  
6 advance;

7           (b) lifting said web in a region of each second groove,  
8 advancing said second groove at a speed matched to said speed of  
9 advance to forcibly fold the web at said second groove, and  
10 depositing a fold formed in the web at the second groove; and

11           (c) repeating step (b) after depositing each fold  
12 formed therein to collect said web as an accordion-folded set of  
13 said panels.

1           2. The method defined in claim 1 wherein said web is  
2 lifted exactly at each second groove by an entrainer extending  
3 across the web.

1           3. The method defined in claim 2 wherein said  
2 entrainer is initially displaced linearly and upwardly at an

3 inclination to said web in a forward direction of travel thereof,  
4 and then said entrainer is displaced forwardly and downwardly.

1 4. The method defined in claim 3 wherein said  
2 entrainer is displaced along a circular path during its  
3 displacement downwardly.

1 5. The method defined in claim 1 wherein the fold is  
2 deposited along a circular arc-segmental path.

1 6. An apparatus for accordion folding a continuous web  
2 of foldable material having a succession of equidistant grooves  
3 formed therein and separating panels of said web from one  
4 another, said web being advanced longitudinally at a speed of  
5 advance, said apparatus comprising a lifter engaging said web in  
6 a region of each second groove and a guide for said lifter formed  
7 on both sides of said web for lifting said web in said region of  
8 each second groove, advancing the respective second groove at a  
9 speed matched to the speed of advance to forcibly fold the web at  
10 each second groove and depositing the resulting fold formed at  
11 the second groove on a previously folded portion of said web.

1           7. The apparatus defined in claim 6 wherein the guide  
2       formed on each side of said web is a chain.

1           8. The apparatus defined in claim 7 wherein said  
2       lifter is a wire extending across said web.

1           9. The apparatus defined in claim 6 wherein said guide  
2       includes a sheet metal member on each said of said web, said  
3       lifter being guided in said sheet metal members.

1           10. The apparatus defined in claim 9 wherein said  
2       lifter is carried by support rollers.

1           11. The apparatus defined in claim 6 wherein said  
2       guide defines an upwardly inclined path for said lifter to a high  
3       point and then a generally circular arc segmental path from said  
4       high point downwardly.

1           12. The apparatus defined in claim 11 wherein said arc  
2 segmental path is defined by a rotary arm or rotary disk  
3 arrangement.

1           13. The apparatus defined in claim 6 wherein the  
2 spacing of lifters along said guide is variable.

1           14. The apparatus defined in claim 6, further  
2 comprising a guide for said web provided with an abutment forming  
3 a stop for said web.

1           15. The apparatus defined in claim 14 wherein said  
2 guide or said step are height adjustable.

1           16. The method defined in claim 1 wherein said web is  
2 a paper.

1           17. The method defined in claim 16 wherein said paper  
2 has a corrugated core with cover sheets on opposite sides  
3 thereof.